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ABSTRACT

This nine-step outline is designed for use by librarians and library trustees in obtaining a general estimate of their library's space needs and for initiating a more comprehensive, detailed facilities planning process. Identifiable spatial requirements to be assessed include space for collections, user seating, staff work, meetings, special use, and nonassignable space. These space needs are based on what must be housed in a library in order to serve its community adequately. Guidelines are then given for projecting future needs based on space requirements, and for translating the results of service assumptions into space needs. Examination of the library structure also reveals other areas of need/concern, such as improvement of energy efficiency; condition of the heating, ventilating, and air-conditioning system; accessibility to the handicapped; adaptability to future library technologies; and overall effectiveness of the work flow. Work space is provided throughout the text for calculations and notes, as well as sample floor plans and examples which illustrate how to make certain calculations. Appended materials include a list of representative types of special use space and a space needs worksheet. Twelve references are listed. (CGD)

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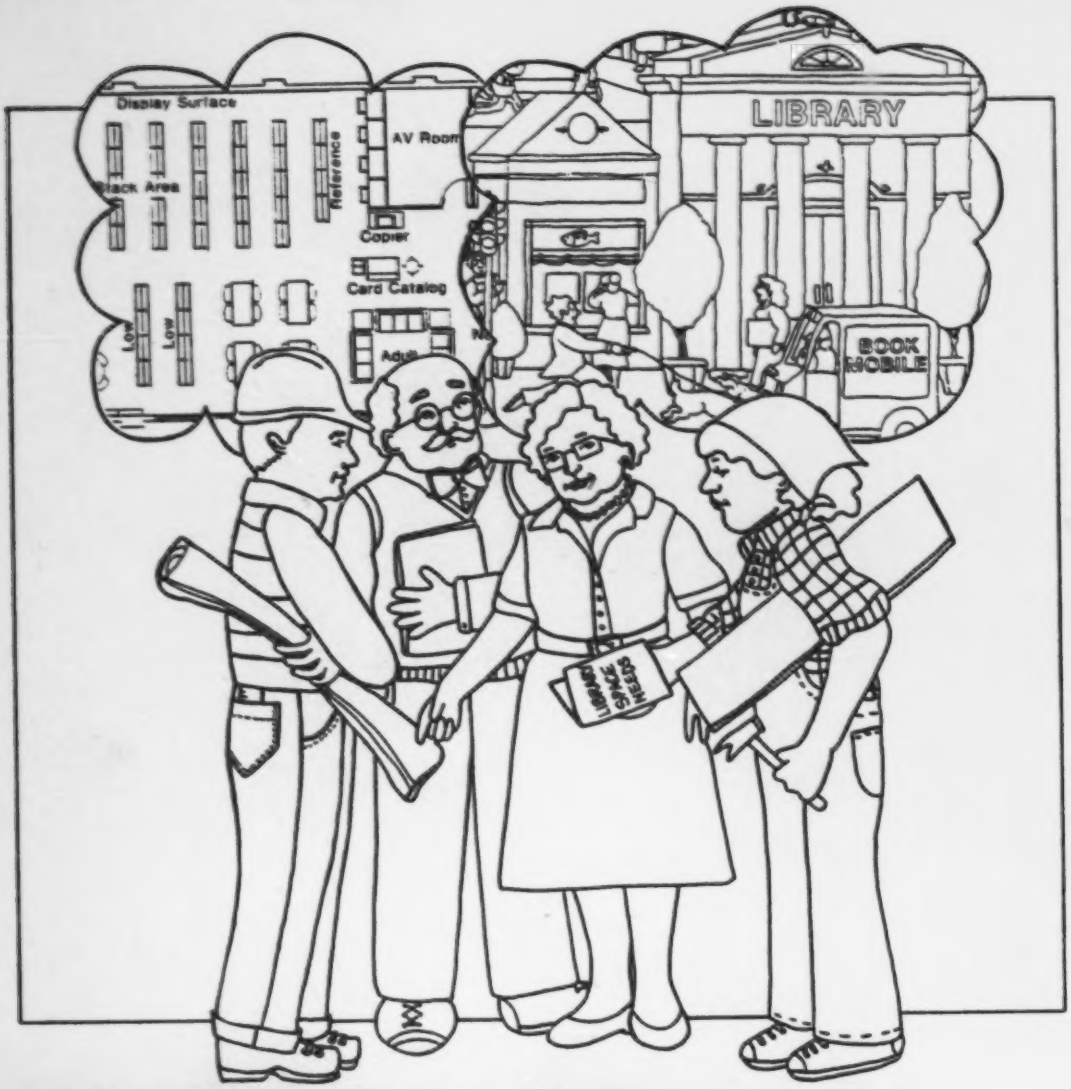

Public Library Space Needs

A Planning Outline

WISCONSIN DEPARTMENT OF PUBLIC INSTRUCTION/HERBERT J. GROVER, STATE SUPERINTENDENT

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Public Library Space Needs: A Planning Outline

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Introduction

This outline is intended to help librarians and library trustees determine whether to initiate a comprehensive facilities planning process. By completing it, librarians and trustees can obtain a general estimate of their library's space needs. With that estimate, planners can assess the adequacy of their library's existing overall square footage and determine if a more detailed study is called for.

The process described in this outline evolved from a simple concept—that library space needs are based on what a library must house in order to serve its community adequately. The things library staff determine that the library must house have identifiable spatial requirements. This outline covers key service areas, suggests how library goals relating to each of these areas can be projected to meet future needs, and provides a way to translate resulting service assumptions into space needs.

Six broad types of library space are defined—collection space, user seating space, staff work space, meeting space, special-use space, and nonassignable (including mechanical) space. Still, this outline cannot be presumed to produce a precise estimate of space needs. Many factors affecting space needs and service projections are not addressed directly in this book.

In brief, the process outlined involves the following steps.

1. Identify the library's projected service population, known as the design population.
2. Estimate the number of items the library will need in its collection to meet future service requirements and identify how much floor space is needed to house that projected collection.
3. Estimate the number of seats the library will need to accommodate in-house use of the collection and how much floor space these seats will require.
4. Estimate the number of staff work stations that will be necessary to support the staff's projected routines and how much floor space they will require.
5. Estimate the type and capacity of meeting rooms that the library will need and how much floor space these will require.
6. Calculate an allocation for miscellaneous public- and staff-use space.
7. Calculate an allocation for vestibules, furnace rooms, rest rooms, and other types of nonassignable space.
8. Assemble the estimates for the six types of space into an overall estimate of space need.

Calculating the needs for these broad types of space quantifies by far the largest share of a library's overall projected space needs. If the result suggests there is a need for an expanded building, further more detailed study would serve to refine the overall space needs assessment.

Library planners must also acknowledge that availability of space, or lack of it, is not the sole reason for examining physical facilities. The need to improve energy efficiency and the condition of heating, ventilating, and air conditioning systems; to insure handicapped accessibility; to adapt to meet the electrical and telecommunications requirements of tomorrow's library technologies; and to assess the general effectiveness of the work flow are other suitable reasons for examining the structure that houses a local library.

This outline requires use of data that should be readily available to local planners—annual circulation, total holdings, and so on. If a particular data element is not available—proportion of resident to nonresident circulation, for instance—this data need not be gathered, even though a sampling could provide useful information. To undertake a special data-gathering effort would require more time than is expected to complete the process described. When data are not readily available, it is acceptable to make a reasonable estimate based on local experience. Local planners may wish to note for themselves

which assumptions are drawn from specific data and which are drawn from reasonable estimates.

Work space is provided throughout the text for calculations and notes. A work sheet is included in Appendix C to help with the calculation of a library's projected overall space need. Examples are also provided to illustrate how to make certain calculations, although the examples are *not* intended to recommend a specific library service level or planning assumption.

The building plan used to illustrate the six types of library floor space in this outline is reprinted with the permission of the Galesville (WI) Public Library Board of Trustees and Schute-Larson Architects. The Galesville Public Library project involved the adaptive reuse of the Gale Theater building.

Planners are encouraged to share their results and comments with Division for Library Services staff. Forward a copy of the completed work sheet along with any comments, reactions, or suggestions to the consultant for public library construction and planning, Division for Library Services, Wisconsin Department of Public Instruction, 125 South Webster Street, P.O. Box 7841, Madison, WI 53707-7841.

Step-by-Step Planning

Step 1: Design Population
Step 2: Collection Space
Step 3: User Seating Space
Step 4: Staff Work Space
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Step 6: Special-Use Space
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Step 1
Design Population

Planning for an effective library facility begins with determining the library's design population—identifying the population the expanded library will be expected to serve. Knowing the design population helps library planners calculate several of the service parameters used to assess space needs in the steps which follow.

There are two key factors to consider in establishing the design population. First, the design population should be a projection of the population in the library's service area. Since library buildings are an important capital investment for most communities, it is crucial that they be planned to respond to current *and future* needs. The recommended time frame for planning is 20 years.

Second, the design population should take into account the fact that the typical Wisconsin library serves an area that extends beyond the boundaries of the municipality in which it is located. The municipality may be considered the library's primary service area, but most public libraries serve individuals from beyond municipal boundaries by virtue of participation in a public library system or county library service or by virtue of reciprocal agreements with neighboring libraries. To ignore the service implications of traffic generated by these individuals would mean planning a facility that would be outgrown too quickly.

Estimates of the projected population for a public library's primary service area—typically the municipality itself—can often be obtained from the municipality, county, or from a regional planning commission. Local school districts may also be a source for such projections; however, school district service areas may not coincide with public library service areas.

To this estimate should be added an estimate of the library's nonresident service population. One simple way to estimate the nonresident population is based on the proportion of resident borrowing and the proportion of nonresident borrowing. If residents account for a certain proportion of the library's total circulation, and one assumes that residents and nonresidents tend to borrow material at roughly the same rate per capita, then one can assume that residents account for an equal proportion of the design population.

Furthermore, if one assumes that the proportion of resident to nonresident borrowing will remain constant for the duration of the 20-year planning time frame, one can assume that the projected resident population represents the same proportion of the library's projected, extended population—its design population.

For other discussions of calculating an extended service population for a public library, see the second edition of *Output Measures for Public Libraries* and Robert Rohlf's *Public Libraries* article. Full citations for both these resources may be found in Appendix B.

▸**Formula.** To calculate a design population, divide the projected resident population by the percentage of resident borrowing.

▸**Example.** The current municipal population of Sampleville is 5,000. The public library's annual circulation is 75,000 items, of which residents borrow 50,000 items, or 66 percent. If a projected municipal population of 8,000 represents 66 percent of the design population, then the design population is 12,000.

Step 2
Collection Space

By projecting the library's collection size, planners can quantify the space needed to house the collection.

A typical section of library shelving affords a specific amount of linear feet of shelving space, which in turn affords a certain capacity per shelving unit. Each shelving unit occupies a discrete amount of floor space, and so one can estimate the number of volumes that can be housed per square foot of floor space. Given this direct link between the size of the collection and the floor space required to house it, projection of collection size is one key to determining a library's space needs.

This outline covers three types of materials commonly found in public library collections—books, audio recordings, and periodicals. Other types of material, like microforms and videocassettes, are found in many collections, but these are only treated indirectly under Step 2. See Step 9 for further refinements. As with the projection of the library's service population, it is most effective to make these projections over a 20-year period.

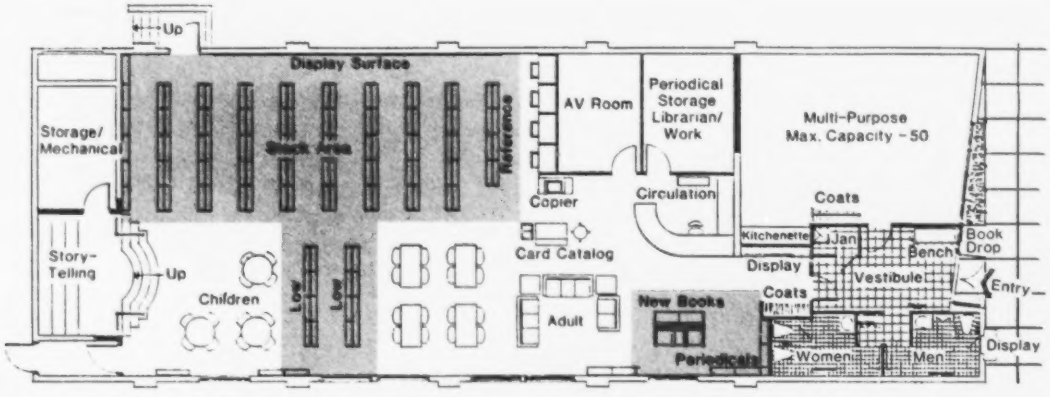
Projecting Collection Size

Projections of collection growth should consider at least two factors:

- application of current standards for public library service (for example, *Wisconsin Public Library Standards*); and
- calculation of the library's rate of net additions to the collection extended over the planning time frame.

Taken together, these factors can guide library planners as they develop a projection of collection size based on their understanding of a community's library service patterns, priorities, and needs. Standards can be used to suggest a minimum collection size; the library's rate of net additions can be used to refine or temper the recommendation of the standard. Different factors may come into play as well. A system or county resource library may be obligated to maintain a larger collection than is recommended by the standards. The library's role in the community may also have an effect on collection size. The key to this step, as with every other step in the space needs assessment process, is library planners' understanding of local needs.

The application of a standard is a simple way to project collection size. *Wisconsin Public Library Standards* provides recommendations regarding minimum collection sizes for Wisconsin public libraries.



Population range	Volumes per capita	Periodicals per 1,000 pop.	Recordings per 1,000 pop.*
Less than 2,000	6.0**	20.0***	118
2,000 to 3,999	6.0	20.0	150
4,000 to 7,999	5.0	16.0	133
8,000 to 14,999	3.5	12.5	116
15,000 to 24,999	3.25	11.0	121
25,000 to 49,999	3.0	8.5	111
50,000 and over	2.5	7.0	100

* The standards do not make a specific recommendation regarding audio recordings, but these are the median rates of holdings per 1,000 population reported by Wisconsin libraries in 1985.

** But not less than 6,000 volumes total.

*** But not less than 20 titles total.

▸**Formula.** To calculate the recommended collection size using current standards, multiply the standard by the design population.

▸**Example.** Applying these recommendations to a design population of 12,000, the Sampleville Public Library should plan for a collection of 42,000 volumes (at 3.5 volumes per capita), 150 periodical subscriptions (at 12.5 titles per 1,000 population), and roughly 1,395 recordings (at 116 per 1,000 population).

Some libraries may already meet or exceed these quantitative minimums, even when applying them to a design population. This could suggest that these libraries have no need to continue expanding their collections and should instead focus on weeding and developing present collections to optimum effectiveness. For other libraries, there may be unique local conditions suggesting that a larger collection is necessary to meet the needs of the design population, and other methods for projecting collection size may be explored.

Specifically, a library's current rate of addition to its collection can be extended through the 20-year planning time frame. This assumes that the current rate of additions will remain constant over time. The library's current rate of additions should reflect the net additions to the collection—additions minus withdrawals—and the rate should be averaged over a period of time, typically four or five years, to minimize the effect of unusually generous or restrictive years for acquisitions.

▸**Formula.** To project collection growth using the net additions method, multiply the average annual net additions by 20; then add the result to the current collection size.

▸**Example.** The Sampleville Public Library's collection numbers 28,000 books. Over the last five years 3,550 volumes have been added and 925 volumes withdrawn. If the average annual rate of 525 net additions continues for the next 20 years, the library will add 10,500 net volumes, to bring its total holdings to 38,500 volumes.

Calculating Collection Space

Once the size of the collection has been determined, the amount of space necessary to house that collection can be estimated.

Books

The number of volumes that can be stored in a given space may vary from five to 30 volumes per square foot, depending on several factors, including the height of the shelving, the width of the aisles, the type of material—for example, reference versus children's books—and so on. A general average for different types of material housed in different environments is ten volumes per square foot.

The estimate of ten volumes per square foot is predicated on housing a normal variety of adult trade books on full-height shelving 84 inches or 90 inches tall installed on five-foot centers—that is, with a three-foot aisle—and leaving the top and bottom shelves vacant for future expansion. A more rigorous estimate of shelving density for adult trade books using standard, full-height shelving is 15 volumes per square foot, which assumes using the top and bottom shelves. This outline recommends ten volumes per square foot instead as one means of compensating for needed spaces that may be overlooked because of the brevity of the assessment process described here.

▸**Formula.** To estimate the space needed to house the library's book collection, divide the total projected collection by ten.

Recordings

For audio recordings, planners should project those holdings 20 years hence using the methods described above. Note recommendations that may be included in applicable public library standards. As with the book collection, once the size of the record and tape collection has been determined, the amount of space necessary to house that collection can be estimated. A general average is ten items per square foot.

▸**Formula.** To estimate the space needed to house the library's recordings collection, divide the total projected collection by ten.

Periodicals

Periodicals require two types of shelving—display shelving for current issues and storage shelving for back issues. Determine the number of periodical titles the library can anticipate carrying in the future. Exclude newspapers, which fall under the scope of Step 6: Special Use Space. Again, note the recommendations that may be included in public library standards. On the average, two square feet of floor space will be needed for every three titles to be displayed clearly with the cover exposed. Next, determine the number of periodical titles for which the library will retain back files, and estimate the number of years that will ordinarily be retained. Allow 0.5 square feet per title for every year retained.

▸**Formula.** To estimate the space needed to display current issues of the library's periodical collection, divide the number of titles to be displayed by 1.5. For periodical storage, multiply the number of titles to be retained by 0.5, and multiply that product by the average number of years to be retained. Add these two figures together.

▸**Examples.** Planners in Sampleville projected that their collection should grow to 42,000 volumes according to the standards, or 38,500 volumes at current rates of net additions. They take as their planning assumption a collection of 42,000 volumes and calculate that the book collection will require 4,200 square feet.

Similarly, they assume that the recording collection will grow to 1,450 items, requiring 145 square feet.

Periodical subscriptions will expand to 150 titles, of which 125 will be retained for an average of five years. Periodicals will require 415 square feet, 100 square feet for display (150 divided by 1.5), plus approximately 315 square feet for storage (125 titles times 5 years times 0.5).

The total collection space for Sampleville will be 4,760 square feet.

Step 3
User Seating Space

One common recommendation is that libraries provide five user seats for every 1,000 people in a projected service area. More detailed guidelines in other planning manuals usually suggest allocating user seating on a sliding scale, with more seats per 1,000 population recommended for smaller communities and fewer seats per 1,000 for larger ones.

The following user seating schedule based on a library's design population is recommended for use with this space planning outline.

Population	Seats per 1,000 population
2,000	12.5
4,000	10.0
8,000	7.0
15,000	5.0
25,000	4.0
50,000	3.0
100,000	2.0
500,000	1.0

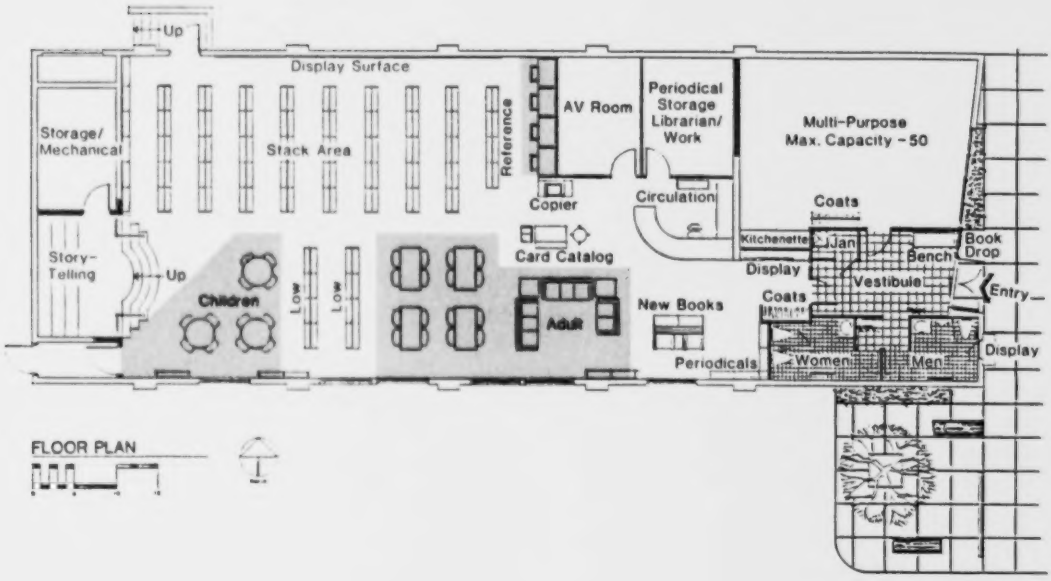
For libraries with populations that fall between these benchmarks, the recommended number of seats per 1,000 would be calculated somewhere between the respective seating recommendations. A library serving 22,000 people falls between the 15,000 and 25,000 benchmarks, and its recommended seating level should fall somewhere in the range of 5.0 and 4.0 seats per 1,000 population, say 4.3 seats per 1,000 population.

This recommendation only establishes a base or starting point for further consideration. Depending on a library's mission and role, it may be appropriate to adjust the recommendation up or down. For instance, if a library emphasizes the Popular Materials Center role described in *Planning and Role Setting for Public Libraries* and the *Wisconsin Public Library Standards*, it may encourage patrons to browse through the collections and select material to be charged out and read at home; long-term in-house use may not be encouraged, and fewer seats may be required. Alternately, a library serving as a Formal Education Support Center or a Research Center may specifically encourage long-term in-house use, and extra seating may be advantageous.

Just as the specific space required to house a library collection depends on the type of shelving used and the type of material stored there, so the exact amount of space needed for user seating will vary depending on the type of seating. For seating at tables, allow 25 square feet per seat; for seating at study carrels, allow 30 square feet per seat; for seating in lounge chairs, allow 40 square feet per seat.

▸**Formula.** For a general estimate of the space needed to provide adequate user seating, multiply the number of projected seats by 30 square feet.

▸Example. Since Sampleville's design population is 12,000, the recommended number of seats per 1,000 population would fall somewhere between 7.0 and 5.0. For purposes of this estimate, planners assume a rate of 6.0 seats per 1,000 population, for 72 seats. At 30 square feet per seat, 2,160 square feet will be required for user seating.



Step 4
Staff Work Space

Building or expanding a facility offers opportunities to reorganize relationships among existing work stations and to add new work stations to improve service to the community.

To determine the appropriate number of service points and appropriate staffing levels at each service point, examine present staff assignments and workloads. Examine trends in service patterns—increasing reference use or young adult use, for example. Compare local staffing patterns with those of neighboring libraries and libraries of comparable size.

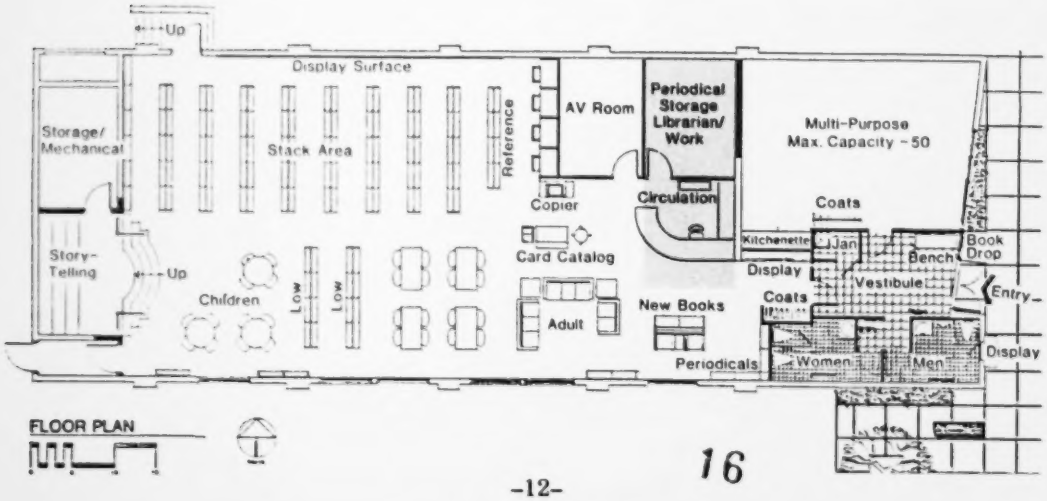
Examine each existing and prospective department or service area—circulation, technical services, reference, children's services, and so on. Determine if a service point is appropriate given present or anticipated workloads; if so, identify how many staff members are needed to meet the projected service need.

Note that this refers not to the number of individual employees or the number of full-time equivalents (FTEs) on the library payroll, but to the number of staff work stations needed to support the library's service program. Obviously, several different individuals can occupy a single work station at different times during the week. Conversely, it may be desirable to provide two or more work stations for certain employees. A children's librarian, for instance, may work at a public service desk part of the time and have a separate station or office away from that desk. Concentrating on work stations enables planners to focus on the tasks to be performed in a given area and how those tasks relate to other library operations.

An average space allocation is 150 square feet per work station. In practice, some work stations will be larger and others may be smaller. Final space allocations will be based on further evaluation of the specific routines to be accomplished at each work station and the amount of furniture and equipment necessary to support those routines.

▸**Formula.** To estimate the area needed for staff work space, multiply the number of work stations by 150 square feet.

▸**Example.** Planners in Sampleville identified eight work stations for an expanded facility—three in circulation (check-in/registration, check-out, book sorting); three in technical services (cataloging, typing, processing and mending); one for a future children's public service desk; and one for the director's office. At 150 square feet per station, these eight stations require 1,200 square feet.



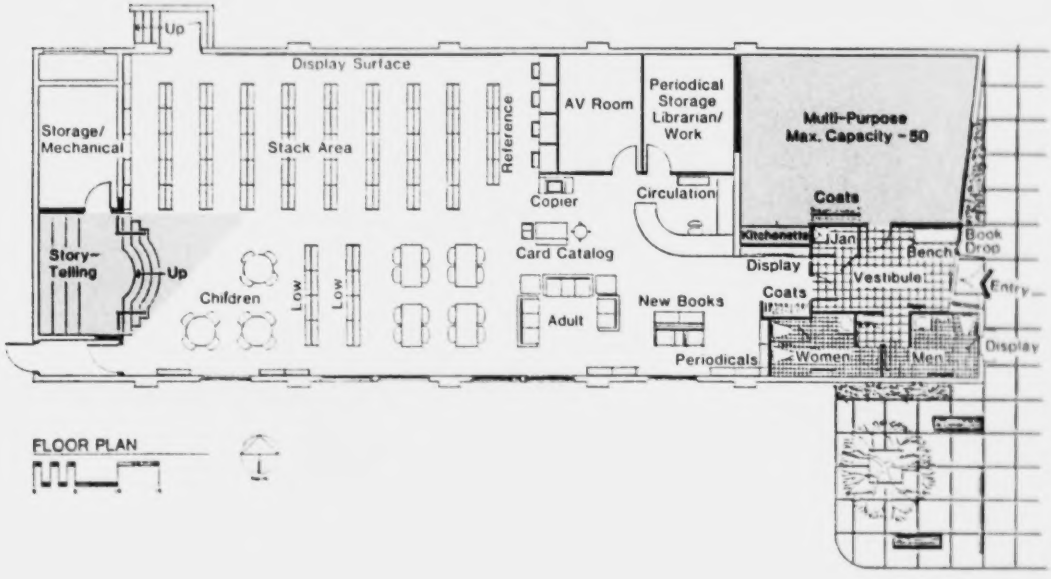
Step 5
Meeting Room Space

Many public libraries provide meeting rooms to accommodate library-sponsored programs and other community meetings. The number and size of meeting rooms should be determined by the library's anticipated programming activities and by the availability of similar rooms elsewhere in the community for use by other local groups.

There are two general types of meeting room space, those with lecture hall or theatre seating and those with conference room seating. Many libraries provide both types. Some libraries with extensive programming activities for children also provide a separate area or room in the children's department to accommodate those activities. Otherwise, children's programs would likely be scheduled in a general meeting room and would prevent other community groups from using the meeting room during certain times.

▸**Formula.** For seating in a lecture setting, allow ten square feet per seat. For seating in a conference room setting at a meeting table, allow 25 square feet per seat. For seating in a children's program area or room, allow 10 square feet per seat.

▸**Example.** Planners in Sampleville reviewed the library's programming activities and assessed the availability of other meeting facilities in the community. They determined that the library ought to provide a general meeting room to seat 60—this room would also serve as a board meeting room—and a separate children's program area to seat 25. Total meeting space required is 850 square feet.



Step 6
Special-Use Space

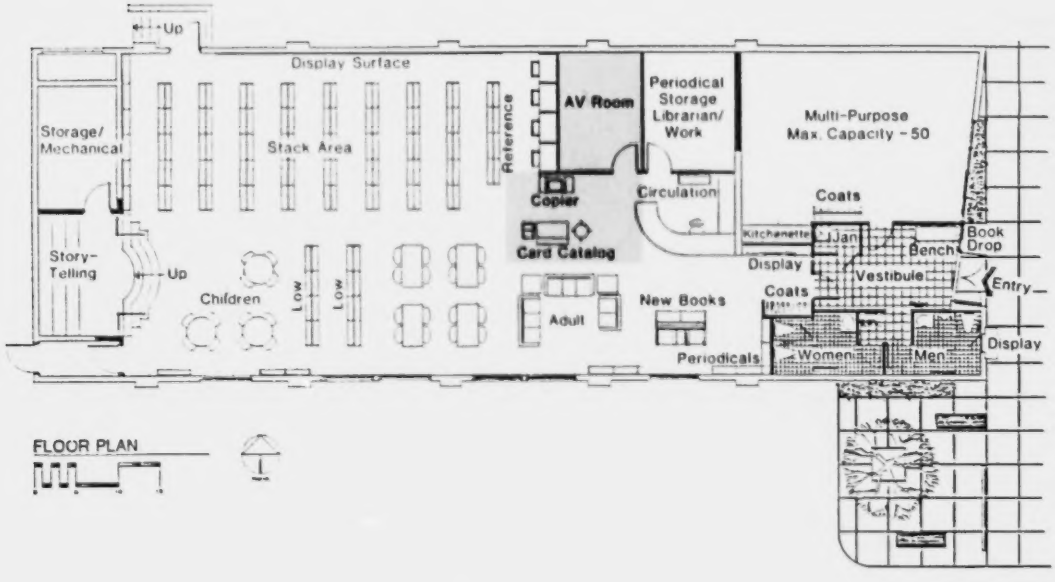
Special-use space must be allotted for elements of an individual library's program of service or for special types of furnishings that have not been accounted for in earlier sections of this outline. For example, none of the four types of library floor space described thus far includes an allocation for a public card catalog or a group of terminals to access an automated catalog. Index tables, newspaper racks, pamphlet files, microfilm readers, and photocopiers are among the more common types of furniture or equipment that have not been accounted for among the preceding types of space described.

Special-use space typically constitutes 7 to 10 percent of the overall or gross area in a public library building.

▸**Formula.** To calculate an allocation for special-use space, add the allocations for the four preceding types of space, and multiply that subtotal by 0.1.

▸**Example.** Planners in Sampleville added their allocations for the four preceding types of library space, resulting in a subtotal of 8,970 square feet. Multiplying this by 0.1 produces an allocation of 890 square feet for special-use purposes.

As an alternative, Appendix A provides a list of representative furnishings and equipment and other types of special-use space, along with sample space allocations for each. Planners can choose from that list the type and number of special furnishings that will be required and total their respective space allocations. Although it will take more time to do this, it will result in an allocation for special-use space that is based more directly on the library's projected program of service.

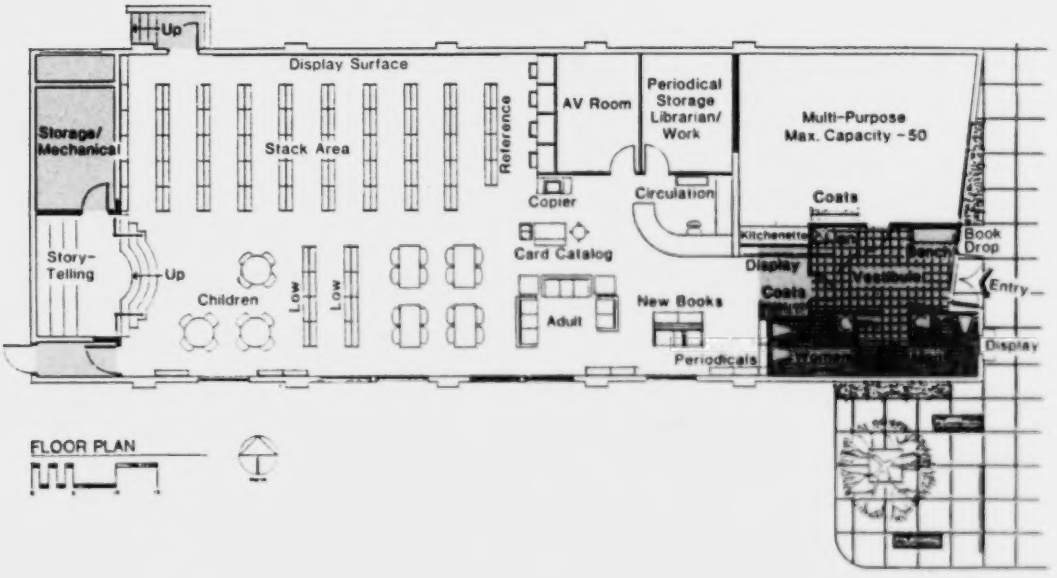


Step 7
Nonassignable Space

Nonassignable space is that portion of a building's floor space that cannot be applied or assigned directly to library service. Some representative types of nonassignable space are furnace rooms, janitor's closets, storage rooms, vestibules, corridors, stairwells, elevator shafts, and rest rooms. Such space is necessary to support the operation of the building, but it cannot be used directly for library service.

Nonassignable space generally comprises about 20 percent of the gross square footage of the finished building. The final allocation of nonassignable space will depend on the efficiency of the library design, the size of the project, whether the project involves new construction or alterations of an existing building, and possible site constrictions, among other factors.

A calculation in the next section, "Putting It All Together," includes an allocation for nonassignable space.



Step 8
Putting It All Together

The space needs estimates developed in Steps 2 through 6 for collection space, user seating space, staff work space, meeting room space, and special-use space can be added to derive a subtotal representing the projected assignable space needs for the library. An estimate for nonassignable space can be made based on this subtotal. Then add the estimates for each of the six types of library floor space.

▸**Formula.** To calculate an allocation for nonassignable space needs, multiply the subtotal of assignable space by 0.25.

▸**Formula.** To determine the library's overall space needs, add the projections for each of the six preceding types of space.

▸**Example.** The Sampleville Public Library projects the following space needs.

Collection space	4,760 square feet
User seating space	2,160 square feet
Staff work space	1,200 square feet
Meeting space	850 square feet
Special-use space	890 square feet
Total Assignable Space	**9,860 square feet**
Nonassignable space (assignable times 0.25)	2,465 square feet
Total Projected Space Needs	**12,325 square feet**

Step 9
The Next Steps

This outline should be completed from time to time, as changing estimates of the community's population and demographics warrant, but no less frequently than every five years. Once this outline is completed, library planners will have an estimate of their library's overall space needs. Comparison of this estimate with the existing facility may highlight a significant deficiency in the space the library provides.

If this procedure documents a need for expanded space, the next step should be a closer examination of this space needs assessment. Re-examine the planning assumptions that went into the estimates. Are the population projections reasonable? Will the collection actually grow to the anticipated size? Should more seating be provided, or less? Are there sufficient work stations? And so on . . . .

The space needs assessment can also be refined through more narrow examination of the six broad types of space. This is done by

- classifying the broad types of space discussed in the outline into more functional groups and arrangements;
- identifying collections or service areas that were not specifically discussed in the context of the outline; and
- describing more specific environments and conditions in the library.

Start by classifying these general space needs into departments. While the outline discusses six broad types of library space, a building will be organized around certain functional areas appropriate to the roles and mission of an individual library. Each such area or department will probably draw from two or more of the general types of space addressed in this outline. A reference department is likely to include some collection space, some user seating space, some staff work space, and some special-use space for index tables, atlas stands, and the like.

The projected collections may be allocated among departments and space needs assigned accordingly.

▸**Example.** Sampleville's book collection was projected to grow to 42,000 volumes. After examining the library's service programs and goals, planners decided that the collection could be divided into these areas.

	Volumes	Sq.ft.*
Adult nonfiction	16,000	1,600
Adult reference	2,000	200
Adult fiction	10,000	1,000
Children's picture books	5,000	500
Children's books	9,000	900
Total	42,000	4,200

* at 10 volumes per square foot.

The other types of space can be subdivided as well—user seating space, staff work space, special-use space, and so on. At the end of this process, planners will have a space needs assessment organized around the library's functional areas.

Fill in gaps in the outline by identifying collections or service areas that were not covered in the outline. Films or videocassettes are one example; microformats are another. They should be added now, along with other service areas that might have been glossed over during the previous calculations. If planners determine the allocation for special-use space with the formula in Step 6, this would be an appropriate time to use the representative types of special-use space listed in Appendix A to determine an allocation for special-use space that is based on the specific equipment, furnishings, and settings planners want to include in an expanded library.

Finally, as the departmental categories are developed and omissions corrected, the space needs assessment can be further refined by noting the effect of the unique environments preferred in each department. Special shelving requirements can be noted and space allocations adjusted to reflect them. Remember that the estimate of ten volumes per square foot is itself predicated on certain assumptions. The actual number of volumes that can be housed per square foot will vary based on factors such as

- the height of a typical shelving unit and the number of shelves it can house;
- the length of a typical shelf and how much of each shelf should be used under ordinary circumstances—the "working capacity" of a shelf is between 66 percent and 80 percent of its actual length;
- the type of material being shelved—that is, how many volumes can typically be shelved per linear foot of shelf space; and
- how wide the aisles are and how big the base shelf is—both factors help determine how much floor space a representative shelving unit occupies.

These factors can change in different parts of a collection. Children's material is often housed on lower shelves than is adult material. Reference books usually are housed with fewer volumes per linear foot of shelving than other types of material. By considering these variations, planners can establish a much more accurate estimate of how many volumes per square foot can be housed in different parts of the collection.

Library planners should also remember that, for various parts of the collection, there will always be a portion out in circulation.

▸**Example.** Sampleville planners divided their library's 42,000 volumes into five broad areas. After examining circulation patterns, they determined a representative percentage in circulation for each area.

	Total Volumes	% In Circulation	Volumes to House
Adult nonfiction	16,000	10%	14,400
Adult reference	2,000	0%	2,000
Adult fiction	10,000	15%	8,500
Children's picture books	5,000	15%	4,250
Children's books	9,000	10%	8,100
Total	42,000		37,250

In a similar way, seating allocations in different departments can be examined more closely. Planners can determine how many seats should be provided at reading tables, how many at carrels, and how many in a lounge or browsing environment. The mix of

table seating, carrel seating, and lounge seating will vary, depending on the role of the library in the community and the atmosphere the planners are trying to create. Then planners must multiply the number of seats at reading tables by 25 square feet, seats at study carrels by 30 square feet, and lounge seats by 40 square feet. This produces an even more accurate combined allocation for user seating.

As the space needs are refined, planners should turn their attention to developing a written building program statement. Actually, by developing a space needs assessment to this point, planners will have completed much of the work involved with writing a building program.

A building program statement is a written summary of library service goals, projected space needs, and a vision of how departments or service areas within a library should interact to achieve those goals effectively. It will describe a library's long-term space needs. It will identify the departments or service areas a library will require to accomplish its program of service, and it will describe what activities or routines will occur in each of those areas.

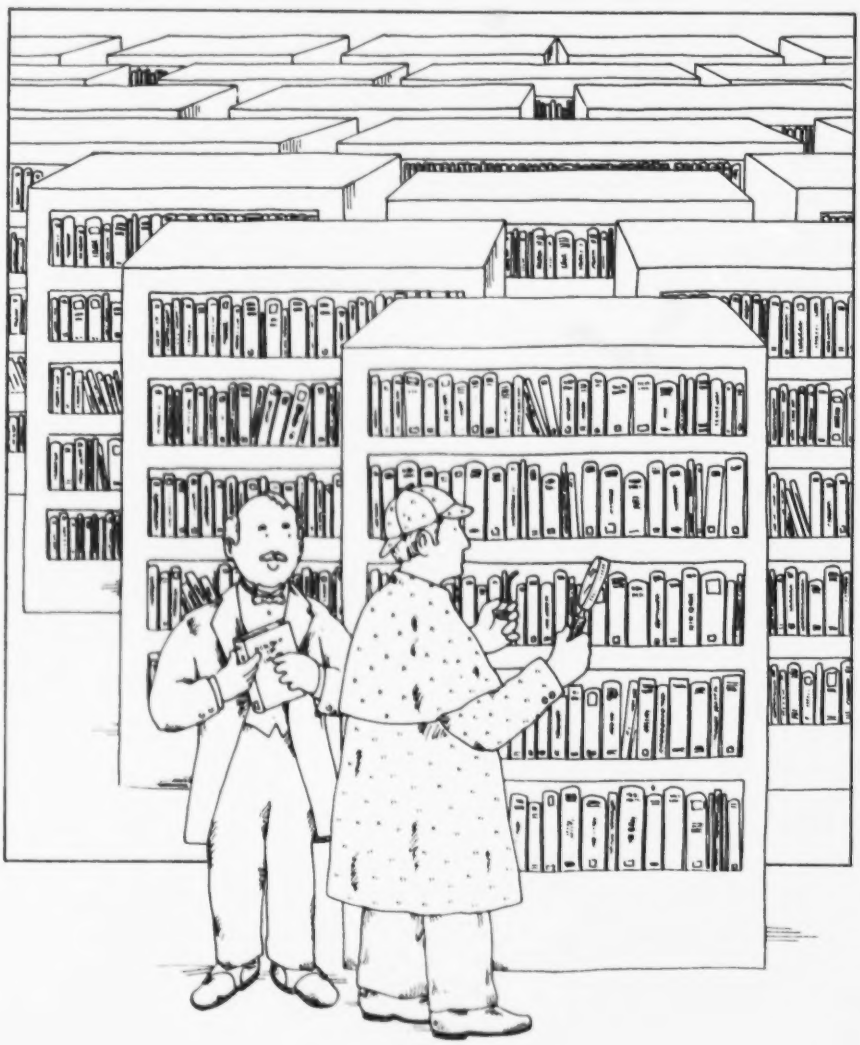
The building program statement will describe the necessary interrelationships among departments. It will describe other architectural requirements that planners wish to incorporate into an expanded facility, including general notes about lighting levels, accessibility, environmental controls, maintenance requirements, and so on. The architect will use a building program statement as a guide when developing plans for a library. The statement becomes a point of common reference between library planners and architect as they consider specific design options.

Wisconsin public library systems and the Division for Library Services can provide continuing assistance with the facilities planning process. Planners can also benefit from a review of the literature on library design and construction. A brief selective bibliography can be found in Appendix B.

If this assessment demonstrates that an expansion project is recommended, library planners must be ready to embark on a most important mission—a building program. Few projects are as complex and rewarding as a building program, and few offer such an opportunity to shape a community's library services for years to come. Local planners across the country have met this challenge time and again. With conscientious effort, every library building planning team can respond successfully to the unique needs of its community for a facility to house library collections and services adequately and effectively.

Appendixes

Appendix A: Representative Types of Special-Use Space
Appendix B: Bibliography
Appendix C: Space Needs Worksheet



Appendix A
Representative Types of Special-Use Space

This list of representative types of special-use space is by no means complete. For types of equipment or furnishings not found in this list, interpolate an allocation from comparably-sized items below.

Item	Space
Card catalog, single face	35 square feet
Card catalog, double face	100 square feet
Atlas stand	35 square feet
Dictionary stand	30 square feet
Index table (six-place)	140 square feet
Paperback rack	35 square feet
Newspaper rack	25 square feet
Vertical files, per cabinet*	10 square feet
Map file	35 square feet
AV storage units**	15 square feet
Display case	50 square feet
Microfilm/fiche reader	35 square feet
Microfilm cabinet	10 square feet
Public typewriter	35 square feet
Public access microcomputer	50 square feet
Photocopier	30 square feet
Small-group study rooms	25 square feet per seat
Staff lounge***	50 square feet, plus 25 square feet per seat

* Note that vertical files come in two-, three-, four-, or five-drawer units.

** This allocation represents a generic storage module for a wide variety of nonprint materials—book/cassette kits, puzzles, filmstrips, and the like; specific storage units may require differing amounts of space.

*** This anticipates space for a small kitchenette and seating at a table or tables; a staff lounge to accommodate six would require 200 square feet (50 + (6 x 25) = 200).

Appendix B
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Appendix C
Space Needs Worksheet

Library _____

Person completing form _____ Date _____

Step 1. Design Population

a. Current local population (for comparison only) _____

b. Projected local population ..... _____

c. Projected nonresident population ..... _____

d. Design population (b + c) ..... _____

Step 2. Collection Space

a.	Books	_____ volumes ÷ 10	_____	sq. ft.
b.	Recordings	_____ items ÷ 10	_____	sq. ft.
c.	Periodical display	_____ titles ÷ 1.5	_____	sq. ft.
d.	Periodical storage	_____ titles × 0.5 × ____ years retained	_____	sq. ft.
e.	TOTAL (a + b + c + d)		_____	sq. ft.

Step 3. User Seating Space

a. _____seats × 30 ..... _____ sq. ft.

Step 4. Staff Work Space

a. _____stations × 150 (list specific stations on reverse) ..... _____ sq. ft.

Step 5. Meeting Room Space

a.	General meeting space	_____ seats × 10	_____	sq. ft.
b.	Conference room space	_____ seats × 25	_____	sq. ft.
c.	Children's programming space	_____ seats × 10	_____	sq. ft.
d.	TOTAL (a + b + c)		_____	sq. ft.

Step 6. Special-Use Space

a.	Collection space (from 2.e.)	_____	sq. ft.
	User seating space (from 3.a.)	_____	sq. ft.
	Staff work space (from 4.a.)	_____	sq. ft.
	Meeting room space (from 5.d.)	_____	sq. ft.
b.	SUBTOTAL 1	_____	sq. ft.
c.	Multiply subtotal 1 by 0.1	_____	sq. ft.

(Alternately, list on reverse specific types of special-use space and their representative space allocations from Appendix A and enter the total in 6.c.)

Step 7. Nonassignable Space

a.	SUBTOTAL 1 (from 6.b.)	_____	sq. ft.
b.	Special-use space (from 6.c.)	_____	sq. ft.
c.	SUBTOTAL 2 (a + b)	_____	sq. ft.
d.	Multiply subtotal 2 by 0.25	_____	sq. ft.

Step 8. Putting It All Together

a.	Collection space (from 2.e.)	_____	sq. ft.
b.	User seating space (from 3.a.)	_____	sq. ft.
c.	Staff work space (from 4.a.)	_____	sq. ft.
d.	Meeting room space (from 5.d.)	_____	sq. ft.
e.	Special-use space (from 6.c.)	_____	sq. ft.
f.	Nonassignable space (from 7.d.)	_____	sq. ft.
g.	GROSS AREA NEEDED (a + b + c + d + e + f)	_____	sq. ft.

Step 4. Staff Work Space

List staff work stations. (If more space is needed, use additional sheets or "Notes" space below.)

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Step 6. Special-Use Space

List special-use spaces from Appendix A. (If more space is needed, use additional sheets or "Notes" space below.)

_____	.....	_____ sq. ft.
_____	.....	_____ sq. ft.
_____	.....	_____ sq. ft.
_____	.....	_____ sq. ft.
_____	.....	_____ sq. ft.
_____	.....	_____ sq. ft.
_____	.....	_____ sq. ft.
_____	.....	_____ sq. ft.
_____	.....	_____ sq. ft.
_____	.....	_____ sq. ft.
TOTAL (Enter total in 6.c. on reverse.)	.....	_____ sq. ft

Notes